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CONTENTS

La Rivers—A new Ambrysus 197

Obituary 202

Gift of Lepidoptera to American Museum 202

Weber—Insect fauna of an Iraq oasis, Baghdad 203

Current Entomological Literature 207

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A New Venezuelan Ambrysus (Hemiptera: Naucoridae)

By IRA LA RIVERS, University of Nevada, Reno

Subfamily **Ambrysinae** Usinger, 1941
Genus AMBRYSUS Stal, 1862

Ambrysus maldonadus sp. nov.

General appearance: A rather "square" species when superficially compared with the remainder of the genus. Size 10.5–11.0 mm. long and 6.75–7.0 mm. wide. Dorsum nearly unicolorous, somewhat lighter anteriorly, yellowish brown, embolia distinctly lighter than background color along outer edges, scutellum reddish-brown. Venter, particularly abdomen, lighter yellow than back, legs bright yellow.

Head: Prominently punctate, shiny; comparatively broad due to shallow concavity for reception of head into anterior margin of pronotum; vertex scarcely and only broadly protuberant before eyes, a prominent tuberculation on each side adjacent to anterior eye corner. Eyes slightly elevated above general head surface; viewed from above, outer and posterior eye edges forming a smooth, uninterrupted semicircle, the thin border along the posterior surface being only suggestively angulate at juncture between the two sides. Labrum rather weakly rounded along lower edge, ratio of length-to-width 26::50 (52%), uniform in color; mouth-parts similar to head in color. Head ratios are

(1) total length to width (including eyes) 40::67 (60%)
(2) anterior distance between eyes to posterior distance 28::34 (82%)
(3) anterior distance between eyes to inner eye length 28::30 (90%)
(4) posterior distance between eyes to greatest length of head posterior to this line 34::8 (24%).

Pronotum: Punctate-glistening, generally light brownish in background color, with yellowish-white around borders; two conspicuous thin black lines each about midway between center and lateral edge of its side, the lines curved slightly outward and unattached either fore or aft; thin blackish line producing a rather wide posterior border to pronotum, with large punctures spaced along posterior border of thin black line, punctures obsolescent along mid-line; lateral pronotal edges smooth, curved, curvature more pronounced at hind angle (postero-lateral angle), per cent of curvature (viewed perpendicularly to the frontal plane of section) about 18 (av. 66::12); venter dark brownish centrally and posteriorly, light yellow laterally, some pilosity along posterior edge and concentrated about median anterior keel; keel ridged its entire length, including posterior sloping face, which latter is the shortest portion of keel, ratio of anterior keel ridge to total keel length (including posterior sloping face), 55::80 (69%); prosternum fused with propleura, the point of union being nowhere a plane surface, the circular juncture at posterior sloping edge of keel being a marked depression, the juncture laterad of this being a raised keel. Pronotal ratios are

(1) width between anterior angles to width between posterior angles 65::130 (50%)
(2) median length to greatest width 47::130 (36%)
(3) distance between anterior and posterior angles on same side to perpendicular distance between anterior angle and baseline of pronotum 65::63.

Scutellum: More or less unicolorous, noticeably redder than pronotum in groundcolor with faint lightening in color laterally; ratio of three sides, anterior and two laterals, 96::70::69.

Hemelytra: Unicolorous deep brownish-red except for lighter areas in embolia, shiny, punctate, each puncture with a whitish spot; embolium well defined at its posterior edge in contrast to many Ambrysi in which the caudal emboliar limitations are obscure, long and narrow, length-to-width 68::20 (29%); emboliar crease pronounced anteriorly, very close to inner emboliar margin, beginning about midway and extending to anterior edge, embolium bicolored, light yellow in anterior two-thirds, reddish-brown posteriorly but without any abrupt contrast between the two. Hemelytra moderately exposing connexival lateral non-spinose edges posterior to embolia, and attaining abdominal tip. Wings functional, as long as hemelytra, and possessing a large "costal" cell.

Venter: The prothoracic venter has been discussed above. Emboliar venter lighter in color than thoracic venter. Connexival segments completely non-spinose, the angles of each segment being inconspicuously acute-angulate, each angle pressed closely to anterior corner of succeeding abdominal segment so as to give an almost smooth line to the general lateral contour, the slight depressions at these junctions are visible only with some moderate magnification; lateral connexival edges everywhere completely smooth under high magnification, lacking any suggestions of serration or dentation; connexival lateral curvature weak, no sudden inward dip of the edge in the shadow of the adjoining segment's angle; both sexes lacking the hydrofuge pelt on the medial posterior three-fourths of the abdomen, the bare, glistening surface beginning at anterior edge of segment IV and expanding caudad into a long, narrow wedge including the accessory genital structures; female subgenital plate consisting of a large, conspicuous, rounded medial process flanked by small, depressed lateral angles, the medial process extending considerably caudad of the side angles (see illustration); the outline of this subgenital plate is distinctive enough to segregate this species from any other *Ambrysus;* male genital process absent, represented only by a rounded angle, and with two distinctive, rather elongate blackish processes lying as indicated

in the accompanying illustration. These processes are tentatively referred to as "procts." [1]

Legs. Forelegs: coxa and trochanter usual for the genus.[2] Femora swollen somewhat more than is normal for the genus, ratio of length to greatest median width is 64::50 (78%); tibia normal, combined tibia-tarsus, when closed, slightly overlapping adjacent (proximal) end of femur.

Midlegs: coxa and trochanter usual for the genus; femora rather robust, ratio of length to greatest median width 60::15 (25%), length 2.8 mm.; tibia with usual spination for the subgenus *Ambrysus,*[3] distal end ventrally with two prominent transverse rows of spines set across width of tibia, the terminal row set solidly across tibial apex, and composed of blunt spines unevenly decreasing in size outwardly, the secondary or proximal row not quite extending the tibial width and composed of similar blunt spines progressively and rather evenly decreasing in size outwardly, ratio of length to median ventral width 135::15 (11%), length 2.2 mm.; tarsus long, narrow, yellow, 3-segmented, first segment larger than usual although the smallest of the three segments, typically elongated beneath second segment, third segment the longest, terminating in two moderately curved claws somewhat swollen at bases.

Hindlegs: coxa and trochanter usual for the genus; femora rather robust, ratio of femoral length to median width 68::17 (25%), length 3.0 mm.; tibia essentially an enlargement of mesotibia, although comparatively more elongate, ratio of length

[1] The relative proportions of these processes have not been discussed in any of my previous papers on Ambrysi, but an examination of other species of *Ambrysus* incident to describing *A. maldonadus* showed these structures to be quite varied in form in the genus. For the most part, as far as the remainder of the genus is concerned, these "procts" seem of relatively minor importance compared to the male genital processes as means of establishing species lines, but may, from the example provided by the new species, be expected to be occasionally valuable units of species measurement.

[2] For a generic summation of leg structures, which are remarkably similar in general aspect for the group as a whole, see pp. 290–291 in La Rivers, 1951A, Univ. Cal. Publ. Ent. 8: 277–338.

[3] La Rivers, 1951A: 290–291 for details.

to median ventral width 68::6 (9%), length 3.4 mm.; tarsus an enlargement of mesotarsus, and more conspicuously spined beneath with large, sparse bristles.

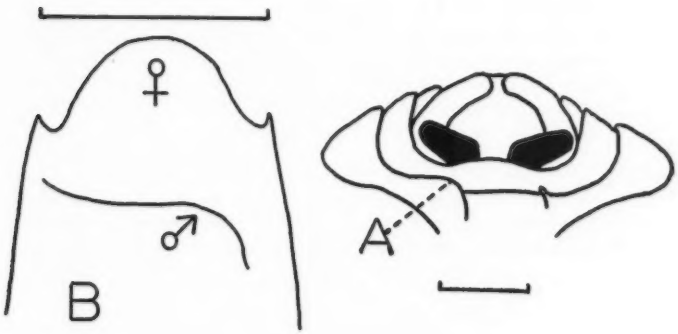

FIG. 1. Showing the diagnostic genitalic accessory structures of *Ambrysus maldonadus*. A. A general dorsal view of the specialized abdominal tip of the male, showing the conspicuous black "procts"; the dashed line originating at "A" terminates at the point usually bearing the male genital process. B. View of the female subgenital plate tip (venter) and an enlargement below of the smoothly rounded, non-process-bearing edge of the male. Drawn from the types. Lines indicate 1 millimeter.

Distribution: see types.

Type locality data: VENEZUELA—Territorio Amazonas: *Mount Marahuaca* (Upper Cunucununa River), 27(v)50, el. approx. 4,000 ft.—J. Maldonado C. (Collected during an expedition sponsored by the University of Puerto Rico.)

Location of types and etymology: Holotypic male and *allotype* in the collection of the writer, Reno, Nevada; two *paratypes* (male and female) in the collection of J. Maldonado Capriles, to whom the species is dedicated.

Comparative data: Ambrysus maldonadus will form an additional monotypic group, differentiated by its distinctive "procts" and especially by the structure of the accessory genitalic structures, particularly those of the female. It will segregate in the following manner from all other Ambrysi known to me:

1. Metatibia ventrally with more than 3 distal, transverse rows of spines, the terminal row longest, each row decreasing in length proximally (Subgenus *Picrops*)..*Ambrysus usingeri*
——Metatibia ventrally with 3 or less such rows (Subgenus *Ambrysus*).....2
2. Prosternum fused to propleura.....3
——Prosternum free from propleura..(remainder of subgenus)
3. Female subgenital plate rounded at tip with a small sharp angle flanking the rounded central tip on each side; male lacking a genital process, and possessing the large, conspicuous, black "procts" (see illustrations).....
.....*Ambrysus maldonadus*
——Without the above combination of characters (while other Ambrysi with fused propleura-prosternum may lack the genital process in the male, the shape of the tip of the female subgenital plate is entirely distinctive in *A. maldonadus,* as is the prominence of the "procts").... (remaining species)

Obituary

Dr. Malcolm Burr, Fellow of the Royal Entomological Society of London and long a Corresponding Member of the American Entomological Society, distinguished author of "The Insect Legion," and also known for his comprehensive and basic studies of the Dermaptera, and of various groups of the Orthoptera, was struck and killed by a motor lorry July 13, 1954, in Istanbul, Turkey. A sketch of Dr. Burr's life and work will appear in an early number of "Entomological News."

Gift of Lepidoptera to American Museum

The J. B. Smith and G. D. Hulst Lepidoptera Collections, containing more than 32,000 specimens, including almost 6,000 species and 1,171 holotypes, has been given to the AMERICAN MUSEUM OF NATURAL HISTORY, New York, by RUTGERS UNIVERSITY. This valuable collection of North American moths is especially noteworthy for its noctuids and geometrids.

In announcing this gift, Dr. MONT CAZIER of the Museum's Department of Insects and Spiders stated that it represents an example of inter-institutional co-operation resulting in ultimate benefit to science as a whole. He credited the co-operation of Dr. BAILEY B. PEPPER, Chairman of the Department of Entomology at the New Jersey Agricultural Experiment Station of

Rutgers, Dr. JOHN B. SCHMITT, Associate Research Specialist in Entomology at the Station and Dr. WILLIAM H. MARTIN, Dean of the College of Agriculture at Rutgers, with having made the acquisition of the collection possible.

Dr. J. B. SMITH, who collected the noctuids, was New Jersey State Entomologist and Professor of Entomology at Rutgers University at the end of the last century. Dr. G. D. HULST, a minister, is well-known for his work on geometrids.

At the Museum the collection will be under the supervision of Dr. FREDERICK H. RINDGE, Associate Curator.

The Insect Fauna of an Iraq Oasis, The City of Baghdad

By NEAL A. WEBER, Swarthmore College, Swarthmore, Pa.

(*Continued from p. 182*)

Dermaptera

Earwigs are common, and *Labidura riparia* (Pall.) has been identified.[6]

Embioptera

Embiids of moderate size were flying from March 25 into May. Their silken runways are obscure compared with those of tropical species.

Hemiptera (Heteroptera)

Bugs (Pentatomidae: *Chroantha ornatula* (H.S.) and *Brachynema virens* (Klug) [6] heavily infested spiny plants (*Alhagi maurorum* Med.), one of the commonest plants of the irrigated areas.

The apparent absence of bedbugs (Cimicidae: *Cimex* sp.) is notable. The story told is that former and foreign rulers of Mesopotamia deliberately introduced bedbugs into the jails to prevent prisoners from enjoying a full night's sleep. The experiment was unsuccessful and the insects are unknown. The prevalence of tile floors and high temperatures may be responsible factors.

The backswimmer bugs (Notonectidae: *Anisops sardea* H.-S. and *varia* Fieber) [6] became numerous in a swimming pool in the latter part of the season and especially November, 1950. They disappeared with the drainage of the pool later that month, only to reappear in smaller numbers in April and the following October-November.

Hemiptera (Homoptera)

Coccids have been the object of extensive collecting by Bodenheimer.[7, 8] Genera with Baghdad records include *Aonidiella, Aspidiotus, Asterolecanium, Aulacaspis, Coccus, Lecanium, Lepidosaphis, Mytilococcus, Parlatoria, Phoenicoccus, Pseudococcus* and *Salicicola.* An unpublished record of *Parlatoria blanchardi* (Targ.) is from date palms at Dujailah April 30, 1951 (det. E. O. Essig). Common ants (*Acantholepis frauenfeldi* Mayr) were in attendance. Aphids were a considerable pest on Oleander and roses throughout the two winters 1950–52. Among their predators were the ant, *Tapinoma nigerrimum* Nyl, a minute wasp which oviposited on the aphids, and coccinellid beetles as well as the aphis-lions below.

Neuroptera

As would be expected in desert areas, the ant-lions, aphis-lions and other Neuroptera are abundant. The fauna is large, diverse and includes such striking types as *Palpares* and *Nemoptera.* Ant-lion pits in the dry soil are particularly noticeable in the spring and fall but were also seen on January 26. Aphis-lion larvae are also active in the winter.

Hymenoptera

The hymenopterous fauna is characterized by the scarcity of Chalastogastra, the relative inconspicuousness of the Terebrantia, the moderate development of Vespoidea and Apoidea and the prominence of Sphecoidea seasonally and Formicoidea at all times. Morice [9] has listed various species from Iraq, many of which will doubtless be found in Baghdad though not specifically so recorded. Among these are mutillids, scoliads, psammocharids, *Sceliphron, Chlorion, Sphex, Cerceris,* bembecines, ha-

lictids, andrenids, megachilids, eumenids, odynerids and chrysids. New records are: A large black and gold bee, *Halictus holtzi* Schulz (Halictidae) [6] from *Acacia Farnesiana* Willd. flowers, the vespids, *Vespa orientalis* L., *Polistes olivaceus* Deg. (= *hebraeus* F.) and *gallicus* L. and *Eumenes campaniformis* v. *esuriens* Fabr.[10] Some of the observations on ants have previously been published.[11]

Coleoptera

The coleopterous fauna is characterized by the abundance and size of tenebrionids, the common species having the elytra fused and therefore flightless. One of the most conspicious throughout the year is *Oenera hispida* Forsk.[12] Along the sandy shores of the Tigris River are cicindellids such as *Cicindella melancholica* and on the open plains is the scarab, *Scarabaeus gangeticus* Castln. The hydrophilid, *Ochthebius,* depends on irrigation ditches and unidentified coccinellids are common on the Oleander hedges, preying on aphids.

Lepidoptera

The moths and butterflies are one of the best known groups through the efforts of Peile and others,[13, 16] and especially, in later years, Wiltshire.[14, 15] The commonest species personally observed appeared to be *Pieris rapae* L. though *Papilio machaon* L. and *Lycaena phloeas* L. were striking when flying in the gardens. The fauna is mostly palaearctic with the largest element Anatolian—Iranian.

Diptera

The dipterous fauna appears to be little known. A few have been identified.[6] The most numerous and conspicuous is the housefly, *Musca domestica* L. and it and the abundant blowfly (*Calliphora vicina* R.D.) and fleshfly (*Sarcophaga* (*Parasarcophaga*)) occur throughout the year. Mosquitoes (*Culex pipiens* L.) are seldom an important pest though they feed in houses throughout the winter. Biting midges (Ceratopogonidae) may be locally a pest, as in May, and sandflies (*Phlebotomus*) are one of the insects of greatest medical significance, being the vec-

tor of the prevalent cutaneous Leishmaniasis (Baghdad boil). The dogfly (Hippoboscidae—*Hippobosca longipennis* Fabr.)[10] is widely distributed as is the sheep botfly (Oestridae: *Oestrus ovis* L.).[12] Horseflies (Tabanidae: *Tabanus regularis* Jaen.)[10] occasionally bite, as on May 19, and deerflies of the same family (*Chrysops* sp.) are rare. The syrphid (Syrphidae: *Tubifera tenax* (L.)) appears common as are asilids and other representatives of the major groups of Diptera.

Siphonaptera

Fleas (Pulicidae: *Ctenocephalides felis* (Bouché) and *Pulex irritans* L.)[10] were taken from a mongoose and a nest of feral kittens in our garden was crawling with unidentified fleas. The heat and dryness, however, do not appear favorable for their general occurrence.

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* Pagination of the Jour. Bombay Nat. Hist. Soc. is as given in the collection called the Survey of Iraq Fauna, published in Bombay under the authority of the Iraq Government.

Current Entomological Literature

Compiled by VENIA T. PHILLIPS, Librarian

Academy of Natural Sciences of Philadelphia

Under the above head it is intended to note papers received at the Academy of Natural Sciences of Philadelphia and the University of Pennsylvania pertaining to entomology, including all arthropods except Crustacea. Coverage will be world-wide as regards major contributions to systematics as well as for all papers on morphology, physiology, embryology, etc. In addition, for species from the Americas and the Pacific (Nearctic, Neotropical and Polynesian regions) all minor contributions to taxonomy, distribution, etc., will also be recorded.

This list gives references of the year 1954 unless otherwise noted. Continued papers, with few exceptions, are recorded only at their first installment.

For other records of general literature and for economic literature, see the Bibliography of Agriculture, Washington, and the Review of Applied Entomology, Series A, London. For records of papers on medical entomology see Review of Applied Entomology, Series B.

NOTE: The figures within brackets [ ] refer to the journal in which the paper appeared, as numbered in the List of periodicals and serials published in our January and June issues. The number of the volume, and in some cases, the part, heft, &c. is followed by a colon (:). References to papers containing new forms or names not so stated in titles are followed by (*); if containing keys are followed by (k); papers pertaining exclusively to Neotropical species, and not so indicated in the title, have the symbol (S).

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dus Forst. (Pteromalidae). [138] 59: 42–6. **Krombein, K. V.**—The identity of Brachycistis nocticola Bradley (Tiphiidae). [56] 56: 85–6. —Taxonomic notes on some wasps from Florida with descriptions of new species and subspecies (Scolioidea & Sphecoidea). [9] 80: 1–27, ill. **Kurian, C.**—Catalogue of Oriental Bethyloidea. [Agra Univ. J. of Research] 3: 253–88. **Linsley, E. G. & J. W. MacSwain**—Observations on the habits and prey of Eucerceris ruficeps Scullen (Sphecidae). [111] 30: 11–14. **Martin, J. C.**—Notes on the genus Foersteria Szépl. and a redescription of Foersteria laeviuscula Szépl. (Braconidae). [43] 86: 116–21, ill. **Michener, C. D.**—Descriptions and records of North American Hoplitis and Anthocopa (Megachilidae). [111] 30: 37–52, ill. (*). —Observations on the pupae of bees. [111] 30: 63–70. —Records and descriptions of North American megachilid bees. [82] 27: 65–78, ill. (k). **Nelson, W. A.**—Observations on hyperparasitism of the wheat stem sawfly Cephus cinctus Nort. [43] 85: 249–51, 1953. **& C. W. Farstad**—Biology of Bracon cephi (Gahan), an important native parasite of the wheat stem sawfly, Cephus cinctus (Cephidae), in western Canada. [43] 85: 103–07, 1953. **Putnam, L. G.**—Observations on internal parasites (Scelionidae) of eggs of pest grasshopper species in the prairie provinces of Canada. [43] 85: 255–60, 1953. **Ristich, S. S.**—A study of the prey, enemies, and habits of the great-golden digger wasp Chlorion ichneumoneum (L.). [43] 85: 374–86, ill., 1953. **Shafiq, S. A.**—A study of the embryonic development of the gooseberry sawfly, Pteronidea ribesii. [116] 95: 93–114, ill. **Tissot, A. N. & F. A. Robinson**—Some unusual insect nests. [64] 37: 73–92, ill. **Vecht, J. van der**—The probable types of Sphex lanierii Guer. and Sphex paulinierii Guer. (Sphecidae). [56] 56: 147. **Walley, G. S.**—Hymenopterous parasites of Choristoneura pinus Free (Tortricidae) in Canada. [43] 85: 152, 1953. **Wheeler, G. C. & J.**—The ant larvae of the myricine tribe Myrmecinini. [56] 56: 126–38, ill. **Wheeler, G. C. & J.**—The ant larvae of the myrmicine tribe Pheidologetini. [115] 60: 129–47, ill., 1953. **Wheeler, G. C. & J.**—The ant larvae of the myrmicine tribes Cataulacini and Cephalotini. [1952] 44: 149–57, ill. **Wishart, G. & E. Monteith**—Trybliographa rapae (Westw.) (Hymen: Cynipidae), a parasite of Hylemya spp. (Dipt.: Anthomyiidae). [43] 86: 145–54, ill. **Wong, H. R.**—Common sawflies feeding on white birch in the forested areas of Manitoba and Saskatchewan. [43] 86: 154–58, ill. (k).

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These notices are continued as long as our limited space will allow; the new ones are added at the end of the column, and, only when necessary those at the top (being longest in) are discontinued.

American Sarcophagidae—wanted for identification. H. R. Dodge, P.O. Box 185, Chamblee, Georgia.

German lepidopterist wishes to correspond and receive live material (eggs and pupae) in exchange for dried imagoes. Johannes Reichel, Koenigsberg, Krs. Wetzlar 16, Germany.

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Cynipid and Itonidid galls—American species wanted; purchase or exchange for British species. Fresh or dried. D. Leatherdale, F.R.E.S., Old Woodstock, Oxford, England.

Wanted—Reprints or papers concerning insects taken in Alaska for inclusion in list of Alaskan insects. R. H. Washburn, Alaska Experiment Station, Palmer, Alaska.

Conopidae of the World wanted. Will pay 10¢ to $1.00 for pinned and labelled specimens. S. Camras, 4407 N. Milwaukee Ave., Chicago 30, Illinois.

Anisoptera—Nearctic sp. wanted for exchange, espec. Ophiog., Arigom., Aeschna, Neurocor., Somatoc., Cordulia, Dorocor., Leucor. R. D. Cuyler, Dept. of Entomology, N. C. State College, Raleigh, N. C.

Bembicini and Stizini (Hym., Sphec.) of New World wanted for revis. study. Will return upon request or at end of project. James E. Gillaspy, Dept. of Zoology, Univ. Texas, Austin 12, Texas.

Agapema galbina. Will exchange cocoons of this moth for nature books. E. Frizzell, Route 4, Box 96, San Benito, Texas.

Wanted—Data on exact location of colonies of *Epibembex* (olim *Bembix*) (Hymenoptera), any species, any part of country, for biological studies. Howard E. Evans, Dept. Entomology, Cornell Univ., Ithaca, N. Y.

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